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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,397	06/30/2000	Damon Barry	13768.132	9886
47973 7590 12/31/2008 WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111				
			EXAMINER KISS, ERIC B	
			ART UNIT 2192	PAPER NUMBER
			MAIL DATE 12/31/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/607,397

Applicant(s)

BARRY ET AL.

Examiner

ERIC B. KISS

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 10-17 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 10-17 and 20-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on October 28, 2008, has been entered. Claims 1-4, 7, 10-17, and 20-27 are pending.

Response to Arguments

2. Applicant's arguments filed October 28, 2008, have been fully considered but they are not persuasive.

Regarding applicant's reliance on the phrase "limited situation" from the Board's opinion, the Board did not hold that claim 1 would be allowable if amended to no longer broadly read on a hierarchy of a single test case. Rather, the Board held that claim 1 was anticipated by the TETware documentation. Further, the Board held that claim 28, reciting the test module comprising a plurality of test cases, was likewise anticipated by TETware. The affirmance of the rejection of a claim on any of the grounds specified constitutes a general affirmance of the decision of the examiner on that claim, except as to any ground specifically reversed. 37 CFR 41.50.

Regarding claim 24, because the test module of applicant's claim is merely a collection of test cases, the fact that individual test cases that make up that collection are executable meets the feature of the test module being executable.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2, 4, 7, 10-17, and 20-27 are rejected under 35 U.S.C. 102(b) as being anticipated by the TETware Release 3.3 software product (hereinafter TETware) released September 18, 1998 by The Open Group, as evidenced by: "TETware User Guide, Revision 1.2" (hereinafter TET_UG), "Release Notes for TETware Release 3.3" (hereinafter TET_RN), and "TETware Programmers Guide, Revision 1.2" (hereinafter TET_PG).

As per claim 1, TETware is disclosed with a computer system comprising:

one or more program modules (test suite directories) storing a plurality of available test cases (see, for example, section 2.5.2 of TET_PG, which describes "Test scenario definitions" that specify which test cases of a test suite are to be executed), each comprising a set of instructions for testing a feature of the computer program through a language and format independent interface (the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG; the use of different source languages to build cases is also disclosed, e.g., C, C++, Shell, Korn Shell, or Perl; see, for example, section 2.4 of TET_UG describing the API components as linkable object code);

a harness client comprising a set of instructions that (i) receives user input specifying one or more filenames corresponding to the one or more program modules (see, for example, section 5.3.2 of TET_UG), (ii) initiates execution of the connector to scan for and discover the plurality of available test cases that are stored in the one or more program modules and to organize the plurality of available test cases into a test case hierarchy (see, for example, section 5.3.2 of TET_UG; test cases are organized into test suites, which are organized in test suite directories under the test suite root directory), and (iii) receives user input for indicating which of the plurality of available test cases in the test case hierarchy are selected test cases to be executed on the computer program (see, for example, section 5.3.2.2 of TET_UG; the scenario file specifies which specific test cases of a specific test suite in a specific test suite directory, relative to the test suite root directory, are to be executed);

a harness comprising a set of instructions that (i) receives the test case hierarchy including the one or more program modules storing the plurality of test cases, (ii) traverses the test case hierarchy, and (iii) executes each of the selected test cases (test scenario) using the corresponding language and format independent interface of the selected test case to ensure that the computer program processes as intended (test case controller; see sections 2.1 and 2.2 of TET_UG; the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG);

a connector, initiatable by the harness client (see, e.g., TET_UG, p. 39, section 6.2.3.1, TET_PG, p. 3, section 2.2), and comprising a set of instructions that (i) scans for the plurality of available test cases stored in the one or more program modules, (ii) organizes the plurality of

available test cases into the test case hierarchy by extracting the plurality of available test cases from the one or more program modules (see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed; section 2.4 of TET_UG; and section 2.4.4 of TET_PG describing the handling of non-API test cases), and (iii) selectively integrates an interface between the test case hierarchy and the harness regardless of the language or format in which the one or more available test cases were written (test case managers and API libraries; see section 2.4 of TET_UG; see also section 2.4.4 of TET_PG describing the handling of non-API test cases);

a processor for executing each selected test case, the harness, the harness client, and the connector (inherent in the operation of the UNIX and WINDOWS operating systems used to implement TETware; see section 1.1 of TET_UG), such that a first test case written in a first language and a second test case written in a second, different language are each executable by the processor because of the language and format independent interface (see, e.g., section 2.4 of TET_UG; see also section 2.4.4 of TET_PG describing the handling of non-API test cases).

TETware is further disclosed with one or more test cases comprising a test suite in the hierarchy and one or more test suites comprising a test module in the hierarchy (see section 2.2 of TET_UG; see further, section 4.1 of TET_PG and 5.3.2.1 of TET_UG). When an individual scenario from the scenario file is processed, one or more test cases may be invoked (as described, for example, 4.2.4.3 of TET_PG and 5.3.2.4 of TET_UG).

As per claim 2, TETware is further disclosed with the set of instructions of the harness and the set of instructions of the connector utilizing an architecture that defines a means for accessing a resource over a network (see section 2.6.3 of TET_UG).

As per claim 4, TETware is disclosed with a method comprising:

The harness client (i) receiving user input that specifies one or more filenames to identify the program module (see, for example, section 5.3.2 of TET_UG), (ii) initiating execution of the connector to scan for and discover the plurality of test cases of interest that are stored in the program module and to organize the plurality of test cases of interest into a test case hierarchy (see, for example, section 5.3.2 of TET_UG; test cases are organized into test suites, which are organized in test suite directories under the test suite root directory), and (iii) receiving user input indicating that at least two of the plurality of test cases of interest in the test case hierarchy are the selected test cases to be executed on the computer program (see, for example, section 5.3.2.2 of TET_UG);

the connector scanning the plurality of test cases of interest stored in the program module (see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed), each test case having a language and format independent interface for executing the test case on the computer program regardless of the language or format used to develop the test case (the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG), wherein the connector is initiatable by the harness client (see, e.g., TET_UG, p. 39, section 6.2.3.1, TET_PG, p. 3, section 2.2);

the connector extracting the plurality of test cases of interest from the program module (see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed);

the connector organizing plurality of test cases into a test case hierarchy (test suite structure; see section 2.2 of TET_UG; see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed);

the connector interfacing a harness with the selected test cases (see section 6.4 of TET_UG; see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed), wherein the interfacing allows the harness to recognize and execute the selected test cases regardless of the language or format in which the plurality of test cases was developed (test case controller; see sections 2.1 and 2.2 of TET_UG; the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG); and

the harness traversing the test case hierarchy and executing each of the selected test cases to test the computer program (see the description of the test case controller beginning on page 105 of TET_UG), such that a first test case written in a first language and a second test case written in a second, different language are each executable by the harness because of the language and format independent interface (see, e.g., section 2.4 of TET_UG; see also section 2.4.4 of TET_PG describing the handling of non-API test cases).

TETware is further disclosed with one or more test cases comprising a test suite in the hierarchy and one or more test suites comprising a test module in the hierarchy (see section 2.2 of TET_UG; see further, section 4.1 of TET_PG and 5.3.2.1 of TET_UG). When an individual scenario from the scenario file is processed, one or more test cases may be invoked (as described, for example, 4.2.4.3 of TET_PG and 5.3.2.4 of TET_UG).

As per claim 7, TETware is further disclosed with a step of determining whether one or more of the plurality of test cases of interest are identified as being deselected, wherein the harness traversing the test case hierarchy and executing each of the selected test cases includes no executing a deselected test case on the computer program (see, for example, the “-n” command line option of the test case controller on page 107 of TET_UG).

As per claims 10 and 11, TETware is further disclosed with excluding test cases determined to be deselected from a selection of a test suite or scenario (see, for example, the “-n” command line option of the test case controller on page 107 of TET_UG).

As per claims 12-14, TETware is further disclosed with the step of traversing further including executing the plurality of test cases on a thread pool comprising one or more threads, and further discloses testing single-threaded and multi-threaded (thread-safe) models (see section 17.4 of TET_PG).

As per claims 15-17, these are computer-readable medium versions of the method discussed above (claim 4), wherein all limitations have been addressed as set forth above. Furthermore, the use of such a computer-readable medium containing executable code is

inherently necessary for the operation of the UNIX and WINDOWS operating systems used to implement TETware (see section 1.1 of TET_UG).

As per claim 20, TETware is further disclosed with user-selected (through a harness client user interface) test cases (see the description of the test case controller and command line usage beginning on page 107 of TET_UG).

As per claims 21-23, see the disclosure applied above in the rejection of claims 12-14.

As per claim 24, TETware is disclosed with a method comprising:

specifying one or more filenames for identifying one or more program modules storing a plurality of test cases, each comprising a set of instructions for testing a feature of the computer program through a language and format independent interface (see, for example, section 5.3.2 of TET_UG; the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG);

identifying the plurality of test cases within the one or more program modules (see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed);

translating the identified plurality of test cases into a test case hierarchy (a test scenario see, for example, section 2.5.2 of TET_PG, which describes “Test scenario definitions” that specify which test cases of a test suite are to be executed), that includes the plurality of available test cases, a first test suite, a second test suite, and a test module, the first test suite including at least two of the plurality of the available test cases, the second test suite including at least

another one of the plurality of the available test cases, and the test module including the first and second test suites, the test module being executable by the harness (see, for example TET_PG, pp. 148 and 160, illustrating a test module (e.g., the collection of “test suites” C-API and SHELL-API under \$TET_ROOT), a plurality of test suites (e.g., “test suites” C-API and SHELL-API), each test suite including at least two test cases (e.g., SHELL-API contains test cases chmod-tc and uname-tc and C-API contains test cases chmod-tc, fileno-tc, stat-tc, and uname-tc));

indicating that the plurality of test cases in the test case hierarchy are to be executed on the computer program (see, for example, section 5.3.2 of TET_UG);

providing an interface to the test case hierarchy in order to recognize and execute the plurality of test cases regardless of the language or format in which the plurality of test cases was written (test case controller; see sections 2.1, 2.2, and 2.4 of TET_UG; the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG); and

running each of the plurality of test cases in the test case hierarchy to test the computer program (test case managers and API libraries; see section 2.4 of TET_UG; see also section 2.4.4 of TET_PG describing the handling of non-API test cases; the test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG), wherein a first test case written in a first language and a second test case written in a second different language are each executable on the computer program because of the language and format independent interface (see section 2.4 of TET_UG; see also section 2.4.4 of TET_PG describing the handling of non-API test cases; the

test cases are built and executed, regardless of their source language, through the same test case controller; see, for example, the description of build mode in section 6.2.3 of TET_UG).

As per claims 25-27, TETware is further disclosed with executing the one or more test cases on a thread pool comprising one or more threads, and further testing single-threaded and multi-threaded (thread-safe) models (see section 17.4 of TET_PG).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over TETware and the associated cited documentation as applied to claim 1 above, and further in view of U.S. Patent No. 6,505,342 to Hartmann et al.

As per claim 3, TETware is disclosed with such a system (see disclosure applied above to claim 1), but is not expressly disclosed with a COM technology architecture. However, Hartmann et al. teach a system for testing components that use middleware, such as COM/DCOM (see column 2, line 61 through column 3, line 4). Therefore, it would have been obvious to one having ordinary skill in the computer art at the time the invention was made to modify the system of TETware to include a COM architecture as per the teaching of Hartmann et al. One would be motivated to do so to gain the advantage of supporting and testing implementations in a standardized object-oriented middleware.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric B. Kiss/
Eric B. Kiss
Primary Examiner, Art Unit 2192